The author became interested in position-measuring instrumentation and eventually began experimental work on an eddy-current proximity transducer used to make small (thousandths of an inch), non-contacting distance measurements. His employer wasn’t enthusiastic about the future of this technology, but this neither deterred nor discouraged him. He founded a company in his garage as a way to market the devices. The transducer eventually found an ideal application — inside machinery to observe the vibration and position of a rotating shaft. The payoff: during the past 40 years an entire industry has grown up around this application, and Bently Nevada Corporation is approaching $200 million in annual sales, employs 1,600 people, and maintains 80 offices around the world. The Bently asked Mr. Bently to share some thoughts about building a successful future — thoughts aimed specifically at those of you who will soon graduate or who have just started your careers.

Introduction

I must confess: I originally entered engineering school because I wanted to invent and tinker and build — and avoid people problems. That’s a fine plan if you anticipate working in a vacuum for the rest of your career. For me, this all went out the window when my company hired its second employee (I was the first employee, no people challenges there), and I realized that I needed other people — customers — to make my company prosper. All of a sudden I was right in the middle of people — employees, customers, suppliers — and 40 years later, I still am. So much for being the Lone Ranger of innovation and technology.

Most of you, like me, won’t be able to relegate your professional lives just to being an individual technology contributor. You’ll progress, you’ll manage people, you’ll have clients, you’ll manage suppliers, you’ll “sell” your ideas to others, be they peers, customers, or managers. In short, you’ll realize that any career in engineering and technology is intimately linked with people and human relationships. For this reason, I’m not going to talk to you about technology skills; I’m going to talk to you about some equally important aspects of your success: people skills and integrity.

Take a Stand

It has been said that if you don’t stand for something, you’ll fall for anything. That is how it is with principles. Early in my career I decided that I would be absolutely true to my principles. This stand has led me occasionally to my principles. However, that is only partially true. Rest assured, technology is moving quickly and will continue to accelerate. I have no doubt that you’ll meet those challenges. As fellow Tau Beta Pi members, you’ve already shown you have the “right stuff” to excel in a technically dynamic and evolving environment.

So, if not solely technical skills, what is it that I believe will have a strong influence over your careers? What is it that, unlike technology, really doesn’t change over time, yet is absolutely fundamental to lasting success? In a word: principles.

What Changes — What Doesn’t

As honor students, you’ve shown you are some of the best and brightest upcoming young engineers in the world. You’ve chosen an honorable profession — one with many opportunities and challenges. The American Society of Mechanical Engineers is predicting a 25-year shortage of mechanical engineers alone. The other engineering disciplines represent similar opportunities, as society’s need for those with strong, technical problem-solving skills outpaces the number of new graduates.

It is tempting to conclude that your technical skills — the things you are developing right now as students — will be the most important ingredients to success. However, that is only partially true. Rest assured, technology is moving quickly and will continue to accelerate. I have no doubt that you’ll meet those challenges. As fellow Tau Beta Pi members, you’ve already shown you have the “right stuff” to excel in a technically dynamic and evolving environment.

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by Donald E. Bently, Iowa Beta ’49, P.E.
to lose business, and sometimes lose employees. In the end, however, I have never regretted adhering as closely as I know how to a set of timeless principles. As I built my company, I demanded of my employees this same dedication to principle. Those who do business with our firm sometimes accuse us of being arrogant, because we occasionally say “no” to customers. This may be for a variety of reasons. Some want to misapply products in ways that we believe to be dangerous. We have a higher calling never to compromise safety — for ourselves or our customers. Others may demand that we participate in business practices that are questionable or dishonest — such as bribes or collusion. But if you aren’t sometimes willing to say “no,” your principles aren’t worth much. So just what are these principles? They are really quite simple. First, however, let’s talk about why they are important.

As I’ve suggested, technical skills alone won’t guarantee a successful career. They are necessary but not sufficient. The world is full of very bright people with strong technical skills who, for one reason or another, have never realized their full potential.

Principles are important because, as the saying goes, “the means are as important as the ends.” Your principles define not so much what you do but how you do it. How you do your work — the passion and commitment and integrity you bring to it — will speak to your boss, your customers, your peers just as loudly as the results of your work.

**Culture — Corporate and Personal**

Over the years, the principles I adhere to and instill in our company have shaped its culture. For those of you who have not yet worked extensively in the so-called “real world,” the concept of a “culture” in a company may be foreign. Believe me — every company has its own persona, its own unique culture. This culture, as much as anything, influences how successful a company becomes. Some cultures are stifling and discouraging. Some are so playful and employee-centric that their real purpose for being and service to customers gets lost. Others foster innovation and excellence and balance the needs of customers and employees. All can have equally technically skilled people working for them, yet have dramatically differing results. One can end in bankruptcy and disgrace, while another can grow and prosper. On an individual level, adherence to your own set of principles defines your own personal “culture.” This culture, as much as your skills, dictates the level of success you’ll enjoy in life.

**Core Values**

The principles of our corporation are embodied in something we call our core values. They are really self-explanatory and rather succinct. I’d like to share our core values statement in its entirety here:

“Core values are different from vision statements and strategic objectives. Core values are an organization’s essential and enduring beliefs; a set of guiding principles so fundamental that they are seldom, if ever, changed. They are . . .

- **Care of our customers**
  Operating principle — The company takes excellent care of its global customers by providing the right solutions to their business problems based on engineering principles. Through this process we provide safe, reliable, high-quality products of lasting value and unequalled service.

- **Business honesty and integrity**
  Operating Principle — The people of this corporation will demonstrate honesty and integrity in all aspects of business.

- **The strength of our people**
  Operating principle — Since people are the source of our strength, we provide:
  - A safe corporate environment that champions professional growth.
  - Employment opportunities that enable personal contribution and reward.
  - Enlightened use of resources
  Operating principle — The conservation of resources directs that the company:
  - Efficiently use renewable resources and avoid the waste of natural resources.
  - Conservatively use our corporate resources to provide the best overall win for our customers, company, employees, and our environment.

- **Profitability**
  Operating principle — Profitability ensures the autonomy necessary to improve continually our ability to serve our customers and be the leader in our industry.”

**A Company Model**

I stated earlier that principles are just as important as technical competence in determining the level of success that you’ll enjoy. I also stated that companies have their own unique “persona” or cultures. People have studied companies, their cultures, and the principles for which they stand. Guess what? Those companies with a strong sense of principles — their own “core values” — show measurably different results than those companies that don’t have a strong sense of identifying for what they do stand. What’s even more interesting is that, within reason, what a company stands for is not as important as that it stands for something and it knows what that is. This will vary from one company to the next, as it should. But what is essential is the sense of purpose that “core values” give to a company. In their excellent book, Built to Last, James Collins and Jerry Porras chronicle the importance of core values in several world-class companies and contrast this with companies that do not have core values. I highly recommend this book. Not only will it give you excellent insight into some of the world’s leading companies, it will also underscore the importance of principles — not just technical competence — to both corporate and personal success.
Your own set of personal “core values” are, as I’ve tried to point out, essential to your future success. They are things that you won’t likely learn in college and that can’t be measured in an IQ test. They are things, however, that a wise employer will look for when interviewing new people. They are also things that a wise employee will look for when evaluating job offers from several companies. They will attempt to discern the company’s culture — not just what it does, but how it does it.

For those of you embarking on your first real jobs in your chosen profession of engineering, I wish you the very best of success. I hope my words here, and my experience in applying them, give you confidence that success is not so much a secret as it is the application of certain habits and principles. I also trust that you, like me, are proud to be a member of Tau Beta Pi because it stands for strong principles, not just academic achievement. This balance of engineering excellence and adherence to ethical principles has worked well for me and my company for nearly 40 years. I have every confidence that they will work for you as well.

References